



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
(801) 538-5340 telephone
(801) 359-3940 fax
(801) 538-7223 TTY
www.nr.utah.gov

Michael O. Leavitt
Governor

Robert L. Morgan
Executive Director

Lowell P. Braxton
Division Director

November 14, 2002

CERTIFIED RETURN RECEIPT
7099 3400 0016 8895 4746

Dennis Williams
Worthen/Williams LLC.
Utah Refractories Corporation
2200 North 1100 West
Lehi, Utah 84043

Re: Five-Year Review of Reclamation Surety Estimate, Worthen/Williams LLC, Roudabush #1 Mine, M/045/027, Tooele County, Utah

Dear Mr. Williams:

Thank you for providing the requested information regarding the five-year review status of your Roudabush #1 Mine, located in Tooele County, Utah. The last surety estimate for this mine was \$72,500 in 1999 dollars. After a review of the information furnished by Worthen/Williams LLC and a site visit to verify the site conditions, we find we only need to escalate the present bond for a five-year period. This is based upon the fact that there had been no changes at the site since the last bond calculation.

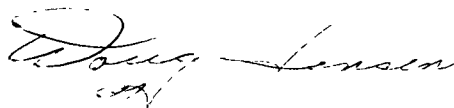
The surety for the Roudabush #1 Mine escalated to the year 2007 is \$97,800. A Surety Estimate Update is attached for your use. Please provide the updated surety within 60 days or no later than January 13, 2003.

You may provide an amendment to the existing Letter of Credit, and no other paperwork will be necessary. However, if you choose to post another form of surety, please contact Joelle Burns at (801) 538-5291 to obtain the current bonding forms or you may access the current forms on the internet at www.nr.utah.gov. If you post another form of surety, we will require that you also replace the Reclamation Contract, which is also located on the web. Please fax a "draft" copy of the documents so we can review them for completeness and accuracy before they are finalized.

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Robert Worthen
M/045/027
November 14, 2002

If you are unable to provide the surety within this timeframe, please contact the Division with justification for requesting additional time. Thank you for your help in keeping the surety current. If you have any questions concerning this letter, please contact Doug Jensen at (801) 538-5382.

Sincerely,

A handwritten signature in cursive script that reads "Doug Jensen".

for

D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program

jb
Attachment Surety estimate update
cc. Doug Jensen, DOGM
O:\M045-Tooele\M045027-Roudabush\Final\bondescal.doc

SURETY ESTIMATE UPDATE

Worthen/Williams LLC

13-Nov-02

Roudabush Mine

FILE # M/045/027

Tooele County

Prepared by Utah Division of Oil, Gas & Mining

Last Update

1999

DESCRIPTION:

-Previous reclamation surety estimate was \$72,500 in year 1999 dollars

-Reclamation Estimate base amount calculated in 1994-\$

Reclamation Plan Details

-Bench highwall; ASSUME: 20 ft wide bench every 25 ft, 600 lf, 3 benches total

-Rip all compacted areas to be revegetated

-Distribute fines over quarry floor; fines estimated at 7% annual production

-Restore channel & riprap; ASSUME 500 lf, 6" of riprap

-Spread existing topsoil stockpiles (estimated volume = 300 cy)

-Revegetation = fertilizing, mulching & seeding (previous estimate was \$468/acre)

-Fertilizer = diammonium Phosphate @ 200 lbs/acre

-Mulch = hay mulch @ 2 tons/acre

-Mobilization (third party reclamation)

-Disturbed area = Present quarry (2.3) + future quarry (18.9) + stockpile area (4.4) + staging area (2.2)
 staging area (2.2) + coarse stockpile (0.3) + access road (0.9)

-Escalation factors through 2002 are actual Means Historical Cost Indices

-Total disturbed area = 29 ACRES

CALCULATIONS	YR	ESCAL FACTOR	BOND AMOUNT
$F = P(1 + i)^n$			
	1991	0.0127	\$0.00
	1992	0.0221	\$0.00
	1993	0.0261	\$0.00
	1994	0.0321	\$67,547.00
	1995	0.0193	\$68,850.66
F = Future Sum	1996	0.0242	\$70,516.84
P = Present Sum	1997	0.0236	\$72,181.04
i = Escalation Factor	1998	0.0502	\$75,804.53
n = number of periods	1999	0.0191	\$77,252.40
	2000	0.0244	\$79,137.35
Three Yr Average = 2.82%	2001	0.0460	\$82,777.67
Used to Project 5 Yrs	2002	0.0282	\$85,112.00
From the Year 2002	2003	0.0282	\$87,512.16
	2004	0.0282	\$89,980.00
	2005	0.0282	\$92,517.44
	2006	0.0282	\$95,126.43
	2007	0.0282	\$97,809.00
Updated Surety Amount Rounded (2007-\$)			\$97,800.00

** Average cost per acre = 3373 (\$/ACRE)